DRANETZ

DRAN-LINK™ - 4300

OPERATOR'S MANUAL

March 15, 1996

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Part Number OM-4300-DRANLINK

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Chapter 1
Introduction

Overview

This chapter provides a description of DRAN-LINK 4300, the DRAN-LINK 4300 software package contents, equipment required to run DRAN-LINK 4300, reference manuals, and a description of the contents of this manual.

DRAN-LINK 4300 description

Dranetz DRAN-LINK 4300 is a communications interface application which permits transferring (downloading) stored data from the Power Platform 4300 to a disk file. DRAN-LINK 4300 enables communication with the PP4300 via a standard RS-232 serial port on the host PC utilizing an optically isolated communications module. With DRAN-LINK 4300 you can choose to download internal memory or download a memory card (if one is installed). Data is saved to a file which can then be viewed with DRAN-VIEW.

Product features

Product features are:

- Support for RS-232 communication using PC standard serial ports COM1 through COM4.
- Plug-and-play auto-detection of connected device eliminates need to manually select serial port.
- Fault-tolerant communication recovery scheme permits short term interruption of communications with no loss of data.
- File compatibility with the DRAN-VIEW Browser.

Package contents

The DRAN-LINK 4300 software package consists of:

- One, 3 1/2 inch installation disk
- Dranetz DRAN-LINK Operator's Manual, OM-DRANLINK (this manual)
- Registration Card.

Registration card

Please fill in the registration card provided in the shipping carton and mail it today. The information requested will allow Dranetz to provide you with the necessary support and up-to-date information on future developments in Dranetz software and hardware.

Continued on next page

Equipment required

To operate the DRAN-LINK 4300 software you must have the following equipment available:

- Dranetz Power Platform, Model 4300 with its Battery Charger/Eliminator
- Isolated Communications Module, PP4300RS232
- Personal Computer or Laptop Computer with a Windows operating system and a serial communications port. (See page 2-1 for details.)

Reference manuals

Refer to the following manuals for reference information related to the equipment required:

- 4300 Operator's Manual, Part Number OM-4300-PQLITE
- Information Sheet for Isolated Communications Module, part no. 899029
- DRAN-VIEW Operator's manual, part number OM-4300-DRANVIEW
- Personal/Laptop Computer Operating Manual

Installing the 4300 to a PC

To install DRAN-LINK 4300 to a personal computer, refer to the Information Sheet for the Communications Module referenced above.

Previous computer knowledge

This manual is written with the understanding that you have a basic knowledge of computers; specifically, the IBM-PC family of computers or compatibles presently available, and operating in a Windows environment.

This manual

This manual contains instructions for installing and operating the DRAN-LINK software. It consists of the following:

Chapter 2 - Launching the Software
Chapter 3 - Main Menu Commands

Customer support

The technical support phone number for DRAN-LINK 4300 is:
1-800-DRANTEC (1-800-372-6832)

The technical support FAX number is:
1-908-248-1834

Chapter 2
Launching the Software

Overview

This chapter contains information dealing with computer requirements and installing the software, The PP 4300 need not be connected to install the software.

In this chapter

The following topics are covered in this chapter.

Topic	See Page
Reviewing Computer Requirements	below
Installing DRAN-LINK software	2-2
Starting DRAN-LINK	2-4
Selecting DRAN-LINK Help	2-6

Reviewing computer requirements

To run DRAN-LINK, computer requirements are as follows:

- Processor: 386 or higher
- Operating System: MS-Windows, version 3.1 or higher (including Windows 95)
- Memory Requirements: 8 MB or greater
- Disk Requirements: 1.5 MB for installation.

Continued on next page

Installing DRAN-LINK Software

Introduction

DRAN-LINK must be installed on your hard disk in its own directory. The setup program will create a default directory titled C:\DRANLINK, and a group called Dranetz Power Suite, unless you specify a different one. The program must be installed from Windows.

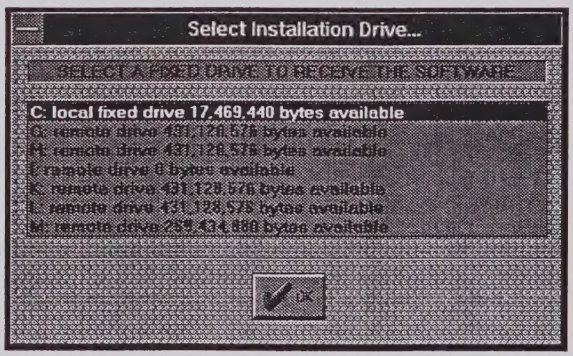
To install the software, the computer need not be connected to the PP4300.

DRAN-LINK directory

DRAN-LINK must be installed on your hard disk in its own directory. The setup program will create a default directory titled C:\DRANLINK unless you specify a different one. The program must be installed from Windows.

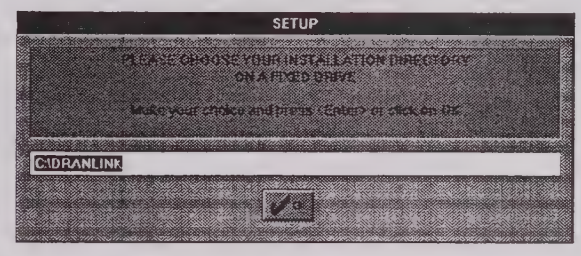
Procedure

Install the software as follows:

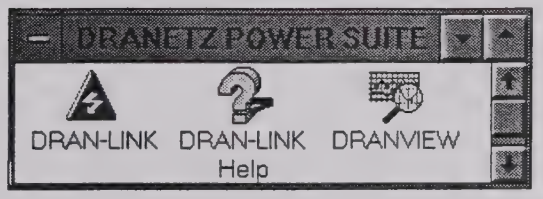
Step	Action
1	Install the DRAN-LINK disk into your a:\ drive.
2	From the File Manager select drive a:\.
3	Click on setup.exe. The message "Please Wait - Copying Installation to Temporary Directory" message is displayed.
4	The Select Installation Drive window is displayed.  Select a fixed drive to receive the software. Highlight selected drive and double-click left mouse button. Normal selection is drive c:\.

Continued on next page

Procedure, continued

5	The Setup window is displayed. Default directory is C:\DRANLINK. 
6	Make your choice and press <Enter> or click on OK for selection of the default directory shown.
7	"Installing Files" message is displayed.
8	Once files are installed, the "Finished Installing DRAN-LINK" message is displayed. Click on OK and the display reverts to the File Manager.
9	Select Windows Program Manager display. Note the DRAN-LINK and HELP icons in the DRANETZ POWER SUITE display as shown below.

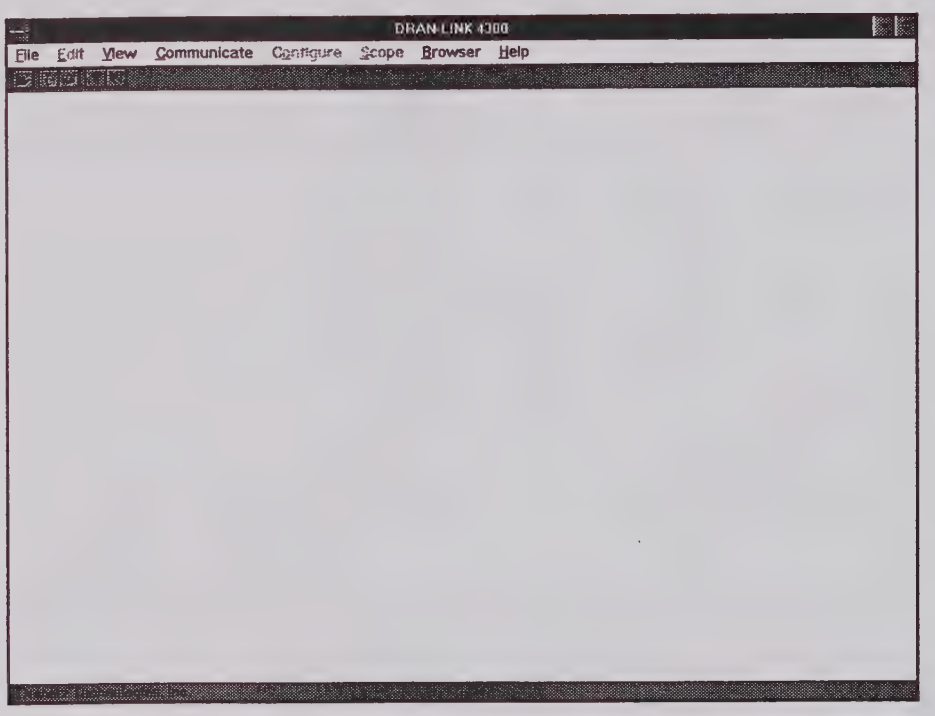
DRAN-LINK icons



DRAN-LINK icon

Double clicking the mouse left button on the DRAN-LINK icon will start the program and will display the Main Menu as shown on the next page. Refer to Chapter 3 for details of the Main Menu Commands.

Main Menu



Main Menu Display Description

The following is a brief description of the areas contained in the Main Menu display that are referenced throughout this manual. The Main Menu display is defined as an application window that appears on the screen. For complete details refer to your Windows operating manual.

Caption bar - The top line contains the Control Menu command symbol on the left edge, the application name of DRAN-LINK 4300, and the Minimize and Maximize buttons on the right edge. Clicking on the Control Menu command will display the Control Menu which includes the following commands: **Restore, Move, Size, Minimize, Maximize, Close,** and **Switch to**. The underlined characters define the upper or lower case letter key used to select the command if the keyboard is used. Quick keys also are defined for the **Close** and **Switch to** commands.

Menu bar - The second line defines the commands available to select operating menus. The Commands that are dimmed are not available. Menus can be enabled with the mouse or with the keyboard selection of the underlined letter of the command. Note that the Browser command is dimmed if the DRAN-VIEW application is not installed. The active menus are described in Chapter 3.

Tool bar - The third line contains two selectable tools for displaying information about copyright information and version of DRAN-LINK 4300 and for Help specific information. The tool bar display is controlled through the View Menu and can be turned on or off.

Document Window - This main area is the display area for showing the pop-up menus, dialog boxes, and the data windows of the application.

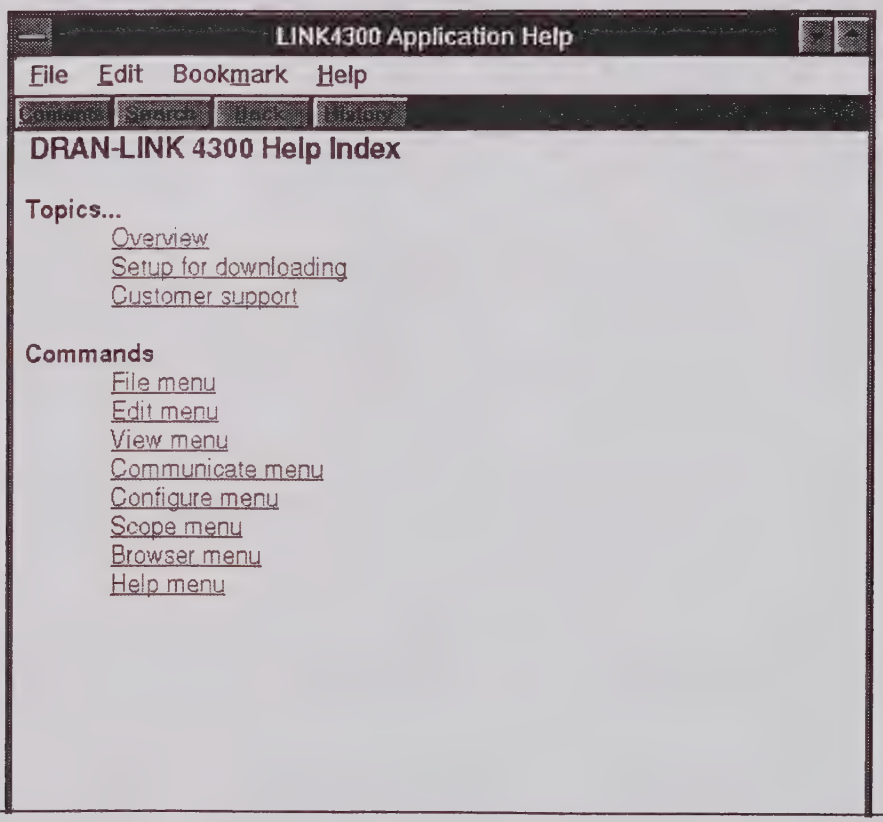
Status bar - The bottom line of the window is displayed as the status bar. It describes actions of menu items as you use the mouse or arrow keys to navigate through menus. The small pane at the right edge of the bar displays the communication port being used to communicate with the PP 4300. The status bar is selected in the View menu.

Continued on next page

Selecting DRAN-LINK Help

DRAN-LINK Help icon

Double clicking the mouse left button on the DRAN-LINK Help icon will display the LINK4300 Application Help Index screen shown below. This index provides topical selections for an overview of DRAN-LINK, downloading setup, and how to get customer support. Command topics provide specific information on the Main Menu commands. These commands are described in Chapter 3 in detail.



Chapter 3
Main Menu Commands

Overview

This chapter describes the selection and application of the main menu commands consisting of File, View, Communications, Browser, and Help. All other commands are disabled. The communications commands are the major commands used to download information from the 4300 internal memory or memory card. To read the files, the DRAN-VIEW application program must be used.

In this chapter

The following topics are covered in this chapter.

Topic	See Page
Entering the Software - Main Menu	3-1
File Menu	3-4
View Menu	3-5
Communicate Menu	3-7
Browser Menu	3-15
Help Menu	3-16
Exiting the Software	3-19

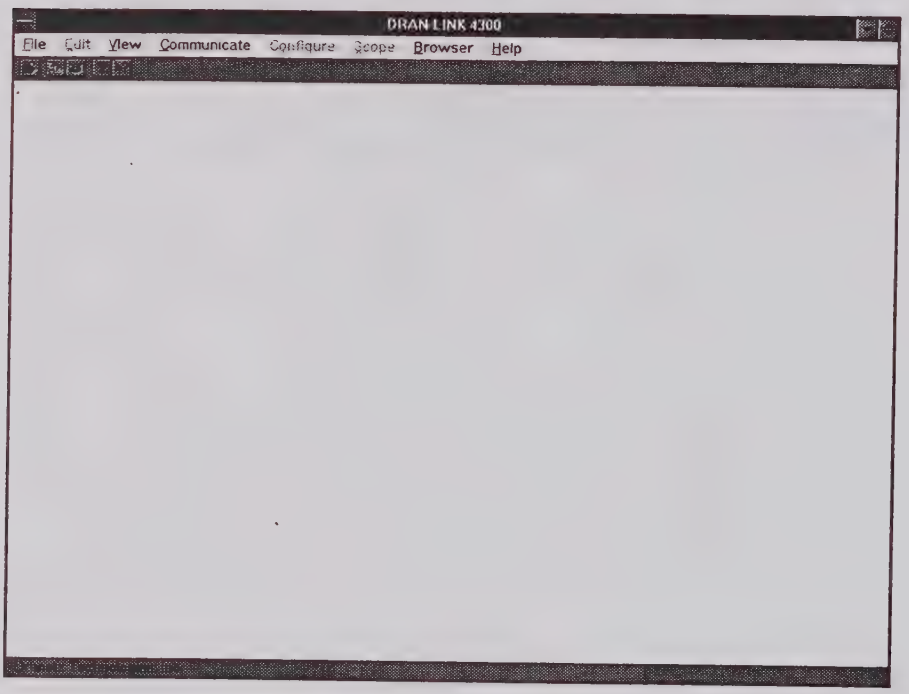
Continued on next page

Entering the Software, Main Menu

Introduction

To execute the DRAN-LINK software, the DRAN-LINK icon in the Dranetz Power Suite program group, is double-clicked using the mouse. All commands for DRAN-LINK are executed from the Main Menu. The Main Menu is shown below.

Main Menu



Selecting commands

Commands are selected by positioning the mouse pointer over the command word and clicking the left mouse button. A pop-up menu will appear indicating further selections. Clicking on a selection will cause other pop-up menus or dialog boxes to appear to make further selections possible.

Active commands

Active commands appear in bold print and consist of File, View, Communicate, and Help.

Continued on next page

Commands not available

Commands that are not available appear dimmed and consist of Edit, Configure, Scope, and Browser. Browser is available when DRAN-VIEW is installed.

File Menu

Introduction

Selection of the File command using the mouse, or ALT + F4 keys, will display the File menu. **Exit** is the only command available from the File menu.

Exit

Use it to end your DRAN-LINK 4300 session. If you choose to exit DRAN-LINK during a data transfer operation, DRAN-LINK must sign-off to the PP4300 to end communication. This process will normally take several seconds to complete so DRAN-LINK 4300 displays a wait message window during this time.

View Menu

Introduction

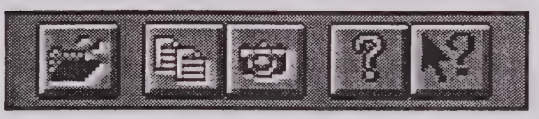
Selection of the View command, using the mouse or ALT+V+T keys, will display the View Menu for selection of the Toolbar or Status Bar. Selection of either will show or hide the respective bar. A check mark will appear next to the menu items when the item is selected.

Toolbar

The toolbar is displayed across the top of the application window, below the menu bar. This version of DRAN-LINK disables all toolbar buttons except the **About** and **Context Help** buttons as shown below.

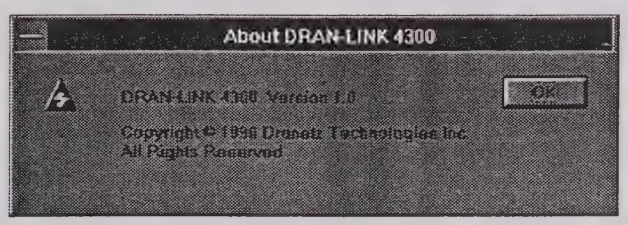
Refer to the description of the Help menu on page 3-16 for further description of Help functions.

Toolbar buttons



About button

Selecting the **About** button will display the copyright notice and version number of your copy of DRAN-LINK as shown below.



Context Help button

Selecting the **Context Help** button will change the mouse pointer to an arrow and question mark symbol. Positioning this symbol over any command or menu item and clicking the mouse button will display a related help topic.

Continued on next page

Status Bar

The Status bar is displayed at the bottom of the DRAN-LINK window.

The status bar describes actions of menu items as you use the mouse or arrow keys to navigate through menus. This area similarly shows messages that describe the actions of toolbar buttons as you press them before releasing them. If you release the button on the toolbar button, then that operation will execute. If after viewing the description of the toolbar button command you wish not to execute the command, then release the mouse button while the pointer is off the toolbar button or out of the menu area.

Communicate Menu

Introduction

Selection of the Communicate command will display the Communicate menu. The Link menu command is the only active option available in the Communicate menu. Selecting Link produces a cascaded menu with the following choices:

- Download Internal Memory - Downloads data from the internal memory of the PP4300 to file.

- Download Memory Card - Downloads data from the memory card (if installed) of the PP4300 to file.

Note: Before attempting any downloading of data, the PP4300 must be connected to the computer. Refer to the Isolated Communications Module Information Sheet, part number 899029, for detailed information about the cabling and equipment required.

Download Internal Memory

DRAN-LINK 4300 will prompt for a file in which to save the download data using a File Save dialog. Once a filename has been specified, DRAN-LINK 4300 attempts to establish communication with the PP4300 and, if successful, begins transferring data to the file. DRAN-LINK 4300 displays a progress indicator window during the transfer operation. The window has a Cancel button to permit termination of the transfer.

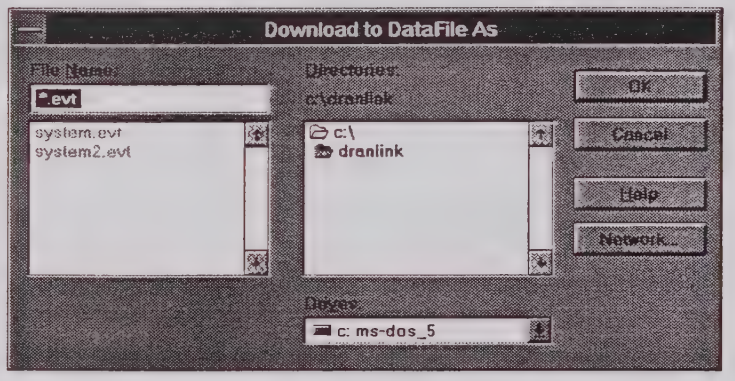
DRAN-LINK 4300 produces a message display to signal the end of the transfer operation. DRANLINK 4300 also produces an message display if the PP4300 reports an error or the transfer operation is aborted at the PP4300.

Downloading the data from the Internal memory of the PP4300 takes about 3 minutes.

Continued on next page

Download Internal Memory Procedure

Perform the following procedure to download data from the internal memory of the PP4300 to a designated file.

Step	Action
1	Connect the PP4300 to the computer. Turn on power to the PP4300.
2	Select **Communicate, Link**, then **Download Internal Memory** commands. The following Save Data File display will appear. 

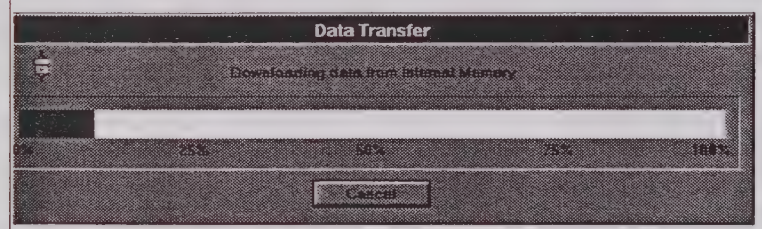
Continued on next page

Download Internal Memory Procedure, continued

3	Using the following options, specify the name and location of the file you are about to save. **File Name** Type the filename in which you want to save the data. A filename can contain up to eight characters and an extension of up to three characters. Files must have an extension of **.evt** to work with DRANVIEW, typing any other extension will produce an error. If you provide a filename only (without extension) DRAN-LINK 4300 adds the .evt extension for you. **Drives** Select the drive in which you want to store the document. Datafiles created by downloading from a memory card are larger than can be saved on a floppy disk. These files must be saved on a hard disk or an error display will be produced.
4	**Directories** Select the directory in which you want to store the datafile. **Network** Choose this button to connect to a network location, assigning it a new drive letter.
5	Select OK to continue downloading or select Cancel to stop.

Continued on next page

Download Internal Memory Procedure, continued

6	If communication failed due to the comport selected, the following display appears. Select **Yes** if you want automatic detection of the comport and continue with next step. Select **No** otherwise. Return to step 1.
7	Downloading will commence with a Wait message for the connection to take place, then a progress display will appear as follows:  **Data transfer will take about 3 minutes.** Go to step 9.
8	If you choose Cancel, the operation will be terminated and the datafile to which the data is being written will be deleted.

Continued on next page

Download internal memory, continued

9	If Auto-detect fails , the following message will appear: Press F1 for help to resolve problem. Select OK to abort communications and return to Main Menu.
10	At the end of data transfer, the following message appears:
11	Select OK with mouse or press Enter key.
12	The Main Menu will be displayed. Selection of DRAN-VIEW from the Browser menu will permit viewing of the datafile.

Download memory card

Selection of this command for downloading data from a memory card to a datafile is identical to the Download Internal Memory process. Although the methods for file selection and transfer are the same, the major differences are speed and memory card to floppy disk capacity compatiblility.

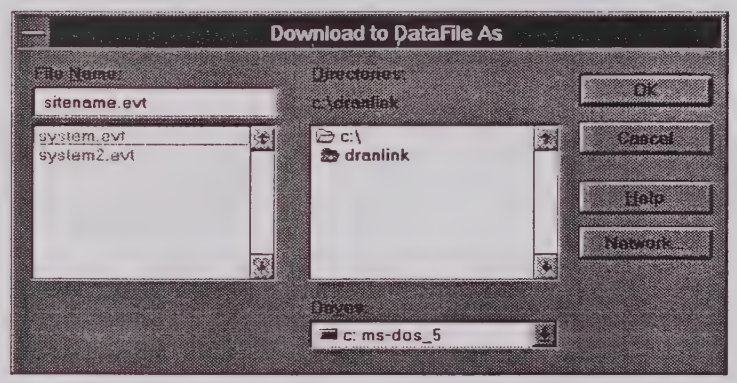
NOTE: Do not attempt to save a memory card datafile that is larger in capacity than that of the floppy disk of the computer. If you do, an error message will be displayed. For example, a 2 Mb memory card will **not** download to a standard 1.44 Mb floppy disk; however, a 512 kb or 1 Mb memory card will download correctly..

Downloading the data from a 1 Mb memory card of the PP4300 to a datafile (or 1.44 Mb floppy disk) takes about 10 minutes.

Continued on next page

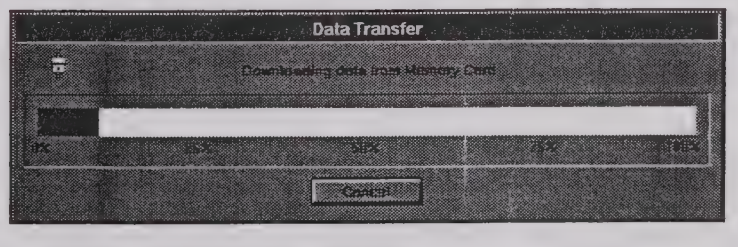
Download memory card Procedure

Perform the following procedure to download data from the memory card of the 4300 to a designated file.

Step	Action
1	Connect the PP4300 to the computer. Turn on power to the PP4300.
2	Select **Communicate, Link**, then **Download Memory Card** commands. The following Save Data File display will appear. 

Continued on next page

Download memory card Procedure, continued

3	Using the following options, specify the name and location of the file you are about to save. **File Name** Type the filename in which you want to save the data. A filename can contain up to eight characters and an extension of up to three characters. Files must have an extension of **.evt** to work with DRANVIEW, typing any other extension will produce an error. If you provide a filename only (without extension) DRAN-LINK 4300 adds the .evt extension for you. **Drives** Select the drive in which you want to store the document. Datafiles created by downloading from a memory card are larger than can be saved on a floppy disk. These files must be saved on a hard disk or an error display will be produced. **Directories** Select the directory in which you want to store the datafile. **Network** Choose this button to connect to a network location, assigning it a new drive letter.
4	Select OK to continue downloading or select Cancel to stop.
5	Downloading will commence with a Wait message, then a progress display will appear as follows:  **Data transfer will take about 20 minutes for a 2 Mb datafile.**

Continued on next page

Download memory card Procedure, continued

6	If you choose Cancel, the operation will be terminated and the datafile to which the data is being written will be deleted.
7	At the conclusion of data transfer, the following message appears:
8	Select OK with mouse or press Enter key.
9	The Main Menu will be displayed. Selection of DRAN-VIEW from the Browser menu will permit viewing of the datafile.

Browser Menu

Introduction

Selection of the Browser command will enable the Browser menu only if the DRAN-VIEW application has been installed. If the Browser menu can be enabled, then selection of DRAN-VIEW can be performed.

If you have collected data from the PP4300 in the current DRAN-LINK session, DRAN-VIEW will automatically open the datafile and display the data when it starts. Refer to the DRAN-VIEW Operator's manual for detailed operating instructions.

DRAN-SCAN is not available in this version of DRAN-LINK.

Help Menu

Introduction

The Help menu offers the following commands, which provide you with assistance with this application.

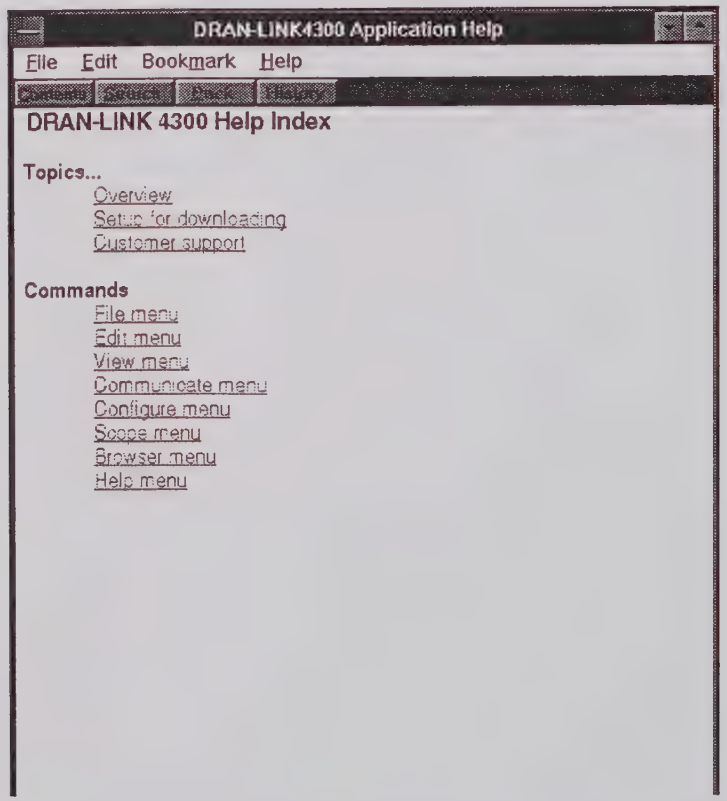
- Index - Offers you an index to topics on which you can get help.
- Using Help - Provides general instructions on using help.
- About DRAN-VIEW 4300 - Displays the version number of this application.

Index

Use this command to display the opening screen of help, shown on the next page. From this opening screen, you can jump to step-by-step instructions for using DRAN-LINK and various types of reference information.

Once you open Help, you can click the Contents button whenever you want to return to the opening screen.

Index Screen

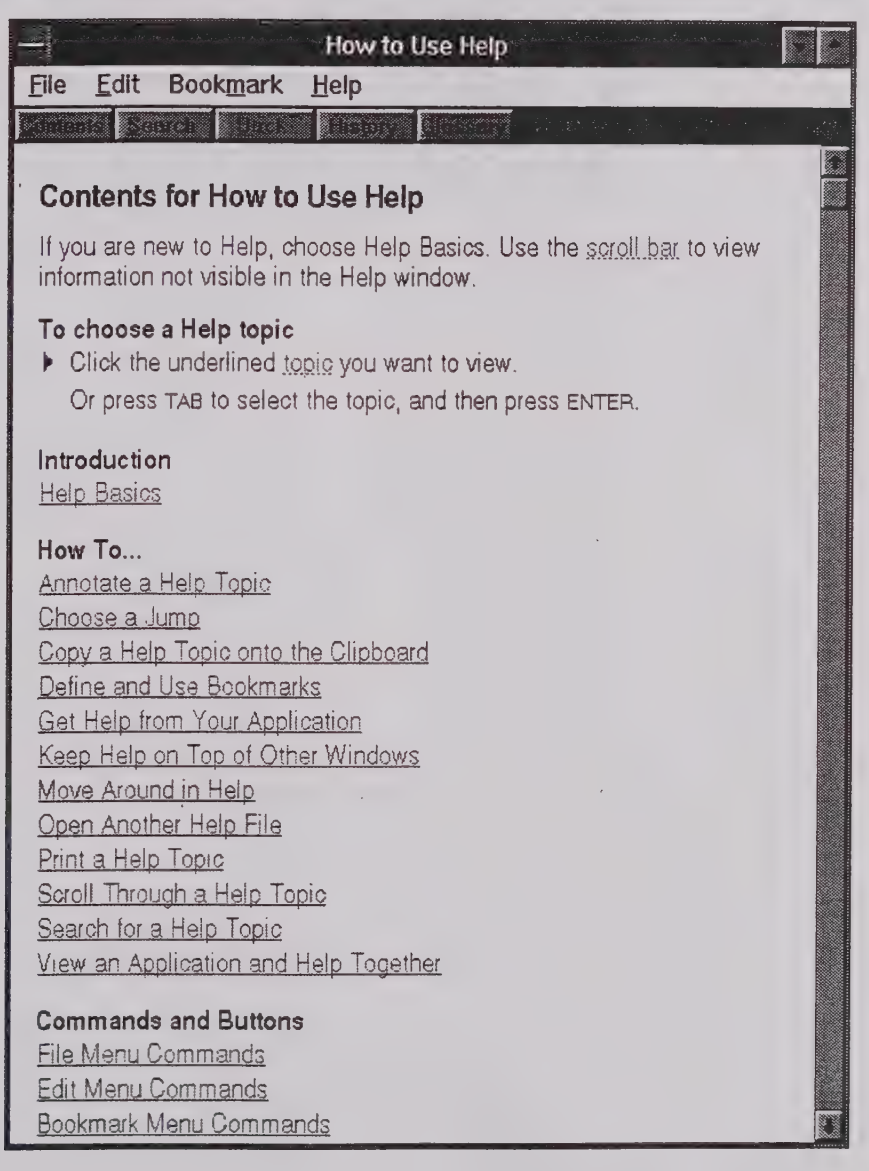


Continued on next page

Using Help

Use this command for instructions about using help. The screen is shown below.

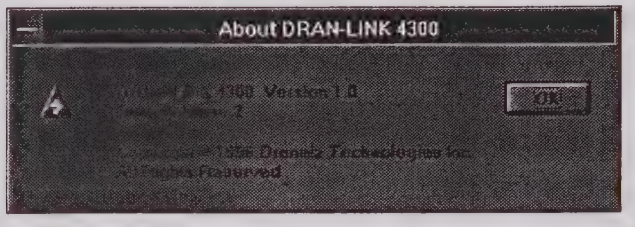
How to Use Help Display


How to Use Help
File Edit Bookmark Help
Contents for How to Use Help
If you are new to Help, choose Help Basics. Use the scroll bar to view information not visible in the Help window.
To choose a Help topic
Click the underlined topic you want to view.
Or press TAB to select the topic, and then press ENTER.
Introduction
Help Basics
How To...
Annotate a Help Topic
Choose a Jump
Copy a Help Topic onto the Clipboard
Define and Use Bookmarks
Get Help from Your Application
Keep Help on Top of Other Windows
Move Around in Help
Open Another Help File
Print a Help Topic
Scroll Through a Help Topic
Search for a Help Topic
View an Application and Help Together
Commands and Buttons
File Menu Commands
Edit Menu Commands
Bookmark Menu Commands

Continued on next page

About DRAN-LINK 4300

Use this command to display the copyright and version number of your copy of DRAN-LINK 4300, shown below.



Exiting the Software

Introduction

There are three ways to exit the software to end the DRAN-LINK session.

- File Menu - Select **Exit.**
- From the Application Control Menu - Select **Close.**
- Double click the Control Menu button.

If you chose to exit DRAN-LINK during a data transfer operation, DRAN-LINK 4300 must sign-off to the 4300 to end communications. This process will normally take several seconds to complete so that DRAN-LINK 4300 displays a wait message during this time.

INFORMATION SHEET - Isolated Communications Module - PP4300RS232

February 28, 1996

1. INTRODUCTION

This information sheet provides installation and operation information for the Isolated Communications Module Assembly, reference designation PP4300RS232, and part number 116093-G1, Rev A. Hereinafter, this module is referred to as the Communications Module. This communications module is provided as an optional accessory to the Dranetz Power Platform, Model 4300.

NOTE: This communications module only functions with PQLite TASKCards /H, /T, and/or /M, version 2.0, or greater.

This information sheet may be reordered as Dranetz part number 899029. It is normally supplied with the communications module when shipped. After use, and for future reference, we suggest that you store this document in the 4300 Operator's Manual, behind the title page.

2. PURPOSE

The communications module , shown if Figure 1, is an optically isolated device using infrared light to transfer text and graphics to a PC or printer. The communications module is designed to connect the Dranetz Model 4300 optical serial port to a standard RS232 serial port. This interface can be connected to an Epson graphics compatible printer for printing screens, or to a personal computer running DRAN-LINK™ to download data. This data can then be viewed by using the DRAN-VIEW™ application program.

3. DESCRIPTION

Figure 1 shows the communications module assembly consisting of a plastic housing containing the connector/pcb assembly with a 3-foot (1m) cable connected to a 9-pin D-type RS232, female connector. A 3-foot (1m) fiber optic cable is provided with this assembly. This fiber optic cable, 900406, is stocked as a spare part and may be ordered from Dranetz if replacement is required.

There are two connectors on the housing body. One connector, mounted on the end of the housing. labeled OPTICAL INTERFACE, contains the twin-pin fiber optic jack. A one meter long fiber optic cable is provided with the assembly. The other connector, labeled 12V, 3 W MAX, is mounted on the side of the housing, contains a 2.5 mm I.D. input jack for connection of auxiliary power for certain printer operations.

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Note: DRAN-LINK and DRAN-VIEW are trademarks of Dranetz Technologies, Inc.

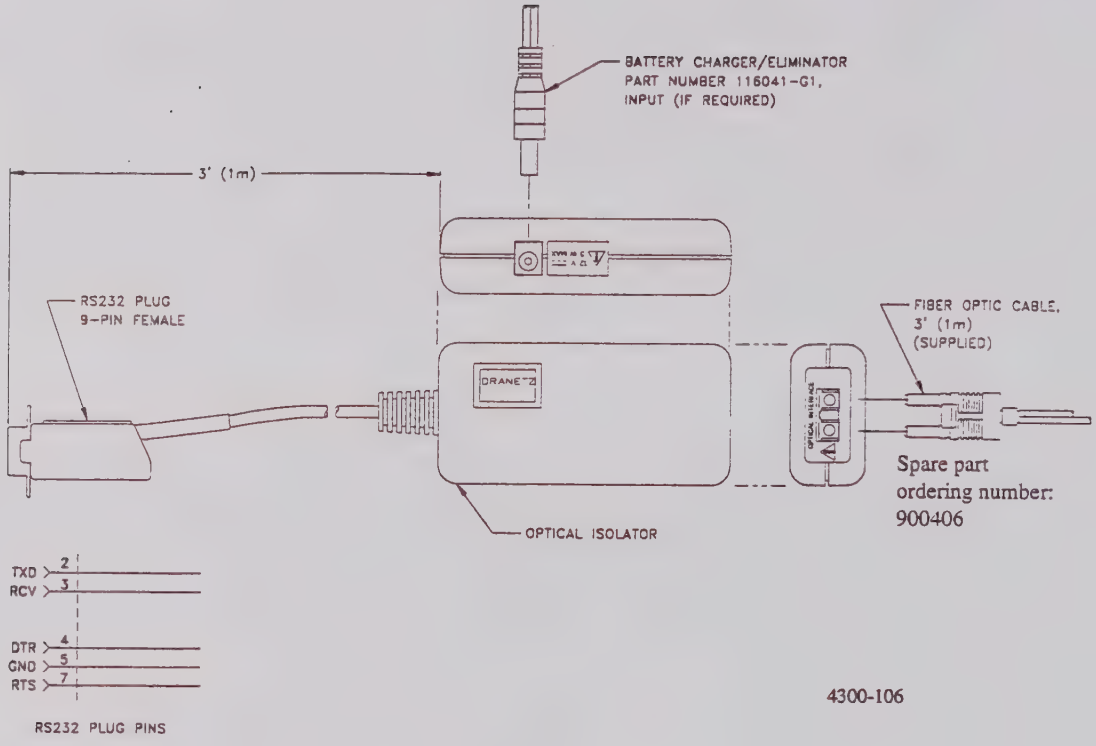

Figure 1. Isolated Communications Module Assembly, PP4300RS232.

3. DESCRIPTION, Continued

The communications module normally draws its power from the serial port RTS and/or DTR lines of the connected PC or printer. PC compatibles usually will have sufficient power available at the port for proper operation of the communications module. Some printers do not implement the RTS/DTR signals; therefore, the communications module will require external power for data transfer to occur. In this situation, the 4300 Battery Charger/Eliminator Power Supply supplied with the 4300, (part number 116041-G1), must be used as an input dc power source.

The battery charger/eliminator plug is connected to the side DC power input jack on the communications module. The battery charger/eliminator AC plug is then connected to input power source while the 4300 is operated from internal battery.

4. INSTALLATION TO A PC

Note: Installing the communications module to a PC requires that the PC has DRAN-LINK communications software installed. DRAN-LINK is included with the communications module.

To install the communications module to a PC proceed as follows:

Step	Action
1	Connect the communications module RS232 plug to the 9-pin D-type jack on the PC. If the PC has a 25-pin jack, then a 25-pin to 9-pin adapter must be connected to the PC first. This adapter is not supplied.
2	Connect one end of the fiber optic cable to the OPTICAL INTERFACE jack on the communications module housing and connect the other end to the OPTICAL INTERFACE jack on the 4300. The fiber optic plugs are keyed and can be inserted and locked in one position only. If the plug does not fit and lock easily, reverse the plug and try again. DO NOT force the plugs into the jacks.
3	Turn on the 4300 and computer.
4	Verify that the computer has DRAN-LINK installed. If not, install DRAN-LINK. Refer to the DRAN-LINK operator's manual for instruction for installing the program and accessing information from the 4300.

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5. INSTALLATION TO A PRINTER ONLY

5.1 Printer Interface

For the 4300 to work properly with a printer, the printer must have a serial interface and must support the proper graphics mode. The 4300 uses the Epson ESC K single-density graphics mode. Refer to the manufacturer's operator's manual for setup instructions. See next paragraph for recommended printers.

5.2 Recommended Printers

The following printers, or equivalent, are recommended for use with the communications module.

Dranetz Portable Field Printer, part number PFP-4300
Epson, Model LX-800

Note: The Dranetz printer uses 8 1/2 x 11" standard paper and can print three 4300 screens on a single sided sheet of paper.

5.3 Procedure

To install the communications module directly to a printer, proceed as follows:

Step	Action
1	Set printer configuration for Epson graphics mode emulation, if applicable.
2	At the printer, manually setup the printer's serial port controls as follows: Baud: 9600 Bits: 8 Stop Bit: 1 Parity: None
3	If you are using the Dranetz printer, connect the printer port to the communications module RS232 9-pin plug, then proceed to step 5. If you are using another printer, proceed to next step.
4	Connect the communications module RS232 plug to the 9-pin, D-type jack on the printer. If the printer has a 25-pin jack, then a 25-pin to 9-pin adapter must be connected to the printer first. This adapter is not supplied.

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5.3 Procedure, continued

5	Connect one end of the fiber optic cable to the OPTICAL INTERFACE jack on the communications module housing and connect the other end to the OPTICAL INTERFACE jack on the 4300. The fiber optic plugs are keyed and can be inserted and locked in one position only. If the plug does not fit and lock easily, reverse the plug and try again. DO NOT force the plugs into the jacks.
6	Turn on the 4300 and printer. Verify that the screen on the 4300 is displaying information. If the screen is not on, recharge the 4300 internal battery before proceeding.
7	At the 4300, press the period (.) key to initiate the print function.
8	Verify that the printer output printed page duplicates the screen presentation of the 4300. If reproduction is accurate, repeat step 7 for each screen required to be printed. When finished printing, proceed to step 13.
9	If no printing occurs, proceed to step 10. If the reproduction is not identical or any information is distorted or missing, proceed to step 11. If you performed steps 10 and 11 and you still experience a problem, proceed to step 12.
10	If printing still does not occur and you are using a non-Dranetz printer, connect a null-modem adapter between the printer port and the RS232 plug of the communications module. Proceed to step 7.
11	The communications module may require that an external power source be connected. Connect the DC plug from the battery charger/eliminator to the 12V, 3W Max input jack on the communications module. Plug the AC power plug of the battery charger/eliminator to a 120VAC source. Operate the 4300 from internal battery. Proceed to step 7.
12	Call Dranetz at 1-800-DRANTEC for technical assistance.
13	When finished printing, turn off power to the 4300 and printer and disconnect all cabling.